

STATE OF TENNESSEE
AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243



Permit to Construct or Modify an Air Contaminant Source Issued Pursuant to Tennessee Air Quality Act

Date Issued: February 1, 2017

Permit Number:
972180

Date Expires: November 1, 2017

Issued To:
MMC Materials, Inc.

Installation Address:
Norfolk Southern Way
Rossville

Installation Description:

Dry mix concrete batch plant with a
cartridge fabric filter (CFF) for each of 3 silos, a fabric filter baghouse
(FFB) for the cement batcher, and a fabric filter baghouse (FFB) for
dust suction at truck load out station with 3-sided curtains
and rubber boot/tube for loading into the transit mix truck top through a metal shroud
Capacity: 200 yd³/hr with an annual production limit of 130,000 yd³/yr

Emission Source Reference No.
24-0119-01

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations (TAPCR).

CONDITIONS:

1. The applications that were utilized in the preparation of this permit are dated September 30, 2016, a subsequently revised application dated December 15, 2016; and an APC 111 form revised and submitted January 26, 2017. These were signed by Mark McCormick, Safety and Environmental Manager for the permitted facility. If this person terminates employment or is reassigned different duties and is no longer the responsible person to represent and bind the facility in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification shall be in writing and submitted within thirty (30) days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the facility in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and covenants. TAPCR 1200-03-09-.03(8)

(conditions continued on next page)


TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON-TRANSFERABLE

POST AT INSTALLATION ADDRESS

General Conditions

2. General Recordkeeping Requirements

Regarding recordkeeping of logs for sources at this facility, the following is applicable:

- (a) For monthly recordkeeping, all data, including the results of all calculations, must be entered into the log no later than thirty (30) days from the end of the month for which the data is required.
- (b) For weekly recordkeeping, all data, including the results of all calculations, must be entered into the log no later than seven (7) days from the end of the week for which the data is required.
- (c) For daily recordkeeping, all data, including the results of all calculations, must be entered into the log no later than seven (7) days from the end of the day for which the data is required.

TAPCR 1200-03-10-.02(2)(a)

3. Visible Emissions

Visible emissions from this source not covered by Conditions 15 and 16 shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)

4. Routine Maintenance Requirements

Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than two (2) years. All maintenance activities (including maintenance that is in-process) shall be entered in the log no later than seven (7) days following the start of the maintenance.

TAPCR 1200-03-10-.02(2)(a)

5. Malfunction Requirements

Upon the malfunction/failure of any emission control device(s) serving this source, the operation of the process(es) served by the device(s) shall be regulated by Chapter 1200-03-20 of the Tennessee Air Pollution Control Regulations.

TAPCR 1200-03-20

6. Submitted Information

This source shall operate in accordance with the terms of this permit and the information submitted in the approved permit application dated September 30, a subsequently revised application dated December 15, 2016; and an APC 111 form revised and submitted January 26, 2017.

TAPCR 1200-03-09-.01(1)(d)

7. Permit Transference

This permit is valid only at this location.

TAPCR 1200-03-09-.03(6)

8. Operating Permit Application

The permittee shall apply for an operating permit within thirty (30) days of initial start-up of this emission source. If construction of the source cannot be completed and an operating permit application filed with the Technical Secretary by the expiration date of this permit, a permit extension request must be submitted in writing at least thirty (30) days prior to the permit expiration date. The operating permit application or the permit extension shall be submitted to the Division at the address listed below or electronic pdf copy via email.

Tennessee Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

or

Adobe Portable Document Format (pdf) to:
Air.Pollution.Control@tn.gov

TAPCR 1200-03-09-.02(1) and (3)

9. Application Shield

This permit shall serve as a temporary operating permit from the date of issuance to the receipt of a standard operating permit, provided that the conditions of this permit and any applicable emission standards are met.

TAPCR 1200-03-09-.02(2)

10. Notice that potential federal air regulations can be imposed in the future

This source shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards. TAPCR 1200-03-09-.03(8)

Start Up Notification

11. Start Up Notification

The permittee shall certify the start-up date of the air contaminant source regulated by this permit by submitting **A COPY OF ALL PAGES OF THIS PERMIT,** with the information required in A) and B) of this condition completed, to the Technical Secretary's representatives listed below:

A) DATE OF START-UP: ____ / ____ / ____
month day year

B) Anticipated operating rate: ____ percent of maximum rated capacity

For the purpose of complying with this condition, "start-up" of the air contaminant source shall be the date of the setting in operation of the source for the production of product for sale or use as raw materials or steam or heat production.

The undersigned represents that he/she has the full authority to represent and bind the permittee in environmental permitting affairs. The undersigned further represents that the above provided information is true to the best of his/her knowledge and belief.

Signature		Date
Signer's name (type or print)	Title	Phone (with area code)

Note: This certification is not an application for an operating permit. At a minimum, the appropriate application form, usually an APC-100, must be submitted requesting an operating permit. The application must be submitted in accordance with the requirements of this permit.

The completed certification shall be submitted to the West Tennessee Permit Program at the address listed below or via e-mail, no later than thirty (30) days after the air contaminant source is started-up.

West Tennessee Permit Program
Division of Air Pollution Control
William R. Snodgrass TN Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

or Adobe Portable Document Format (PDF)
Copy to: Air.Pollution.Control@TN.gov

TAPCR 1200-03-09-.02(3)(b)

Source Specific Conditions

12. Production rate for this source shall not exceed 130,000 cubic yards of concrete per calendar year. This limitation is established pursuant to Rule 1200-03-09-.01(1)(d) of TAPCR and the permit applications approved by the Division. This includes an original application dated September 30, 2016; a subsequently revised application dated December 15, 2016; and an APC 111 form revised and submitted January 26, 2017.
13. A record of the concrete production at this facility, in a form that readily provides the information required in the table below, shall be maintained at the source location and kept available for inspection by the Technical Secretary or their representative. All data, including all required calculations, must be entered in the log no later than thirty (30) days from the end of the month for which the data is required. The permittee shall retain this record at the source location for a period of not less than two (2) years.

Month	Production (cubic yards)	Month	Production (cubic yards)	Month	Production (cubic yards)
January		May		September	
February		June		October	
March		July		November	
April		August		December	
Total(s) for calendar year _____					

TAPCR 1200-03-10-.02(2)(a)

14. Particulate matter (PM) emitted from the following stack emission points served by dust collectors described in the table below shall not exceed 0.25 grains per dry standard cubic foot of exhaust gas and the particulate emission limits listed in the table below. Compliance with the PM emission limits is based on compliance with **Conditions 3, 4, 5 and 12** of this permit.

TAPCR 1200-03-07-.04(2)

Stack emission points and respective allowable PM emissions

*Refer to Table Footnotes for information used in calculating and determining the allowable PM emission limits for truck-to-silo loading and concrete batch plant operations.

Stack emission points served by dust collectors which include cartridge fabric filters (CFF) and fabric filters with bags (FFB)	PM emission control device(s)	Flow rate CFM (ft ³ /min)	PM emissions allowed at 0.25 grains/dscf with FFB or CFF	Annual PM allowable
Silo S1 (cement) 735 barrels (bbl)	CFF C & W LPR-8-S with 8 filter cartridges	2340 cfm	For all cement TLs loaded to silo(s) 3.76 lbs PM/TL Hourly PM allowable = 5.01 lbs PM/hr	4800 lbs PM/yr for cement silo loading
Silo S2 (cement) 565 bbl	CFF C & W LPR-8-S with 8 filter cartridges	2340 cfm	For all cement supplement/fly ash TLs loaded to the silo 3.76 lbs PM/TL Hourly PM allowable = 5.01 lbs PM/hr	713.65 lbs PM/yr for cement supplement loading
Silo S3 (fly ash) 565 bbl	CFF C & W LPR-8-S with 8 filter cartridges	2340 cfm		
Cement batcher /cement weigh hopper	FFB CON-E-CO 14-23 baghouse	180 cfm	Hourly PM allowable = 0.39 lbs PM/hr	253.5 lbs PM/yr
Load out of concrete	FFB CON-E-CO	5880 cfm	Hourly PM allowable = 12.60 lbs PM/hr	8190 lbs PM/yr

mix to transit mix truck (Truck Load out)	PJ-980D baghouse for truck load out station with 3-sided curtains, back curtain 9 ft W x 6 ft L, two sides 6 ft-8 in W x 6 ft L and a rubber loading boot inserted thru metal shroud top			
Total allowable PM emissions from stacks				13,957.2 lbs PM/yr or 7.0 tons/yr

*The allowable PM emissions limits of stacks (fabric filters) are based on 0.25 grains/dscf per TAPCR 1200-03-07-.04(2), respective flow rates from the table above, and the information shown below including operating times for various operations and associated stacks.

For silos: 25 tons per truck load (TL) to silos for cement or cement supplement (fly ash) from application is standard and typical. 45 minutes for silo loading time per application. Per AP-42 Concrete Batching, 491 lbs cement/yd³ concrete and 73 lbs cement supplement/yd³ concrete 101.833 yd³ of concrete is produced per TL of cement and 684.9315 yd³ concrete is produced per TL of cement supplement. The respective number of annual silo TLs and corresponding loading times for cement and for cement supplement were used to determine annual PM emission limits in lbs/yr. This was determined to be 1276.6 TLs of cement at 957.5 hrs/yr of silo loading and 189.8 TLs of cement supplement and 142.4 hrs /yr of silo loading. Each material has a different emission factor. Silos loading hours differ from batch plant hours. **For concrete batch plant operations** fabric filter control includes a CFF on the cement batcher and a FFB on the truck load out. Concrete batch plant hours operating hours equals the annual concrete production in yd³/yr divided by batch plant hourly design capacity in yd³/hr. Thus, 130,000 yd³ concrete/yr x 1/200 yd³/hr = 650 hrs/yr for batch plant operation and associated stacks.

15. Visible emissions from roads and parking areas shall not exhibit greater than ten percent (10%) opacity, as determined by Tennessee Visible Emission Evaluation (TVEE) Method 1, as adopted by the Tennessee Air Pollution Control Board on April 29, 1982, as amended on September 15, 1982 and August 24, 1984. TAPCR 1200-03-08-.03
16. Fugitive emissions from this source shall be controlled as specified in Rule 1200-03-08-.01. Specifically, no person shall cause, suffer, allow, or permit fugitive dust to be emitted in such a manner to exceed five (5) minutes per hour or twenty (20) minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in Chapter 1200-03-20. Fugitive emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 4, as adopted by the Tennessee Air Pollution Control Board on April 16, 1986.
17. Particulate matter (PM) emitted from the following fugitive operations shall not exceed the particulate emission limits shown below.
 - a. For the aggregate and sand handling operations which include ground storage, transfer to conveyor, and transfer from conveyor to elevated storage, PM emissions shall not exceed 0.0237 lbs PM/yd³ of concrete produced based on AP-42 for Concrete Batching dated June 2006. The corresponding annual PM limit is 3081 lbs PM/yr for 130,000 yd³ of concrete per year.
 - b. For the weigh hopper loading of aggregate and sand, PM emissions shall not exceed 0.0079 lbs PM/yd³ of concrete per AP-42. The corresponding annual PM limit is 1027 lbs PM/yr for 130,000 yd³ of concrete per year.

Compliance with the above fugitive PM emission limits is based on taking reasonable precautions or measures to prevent particulate matter from becoming airborne thus controlling fugitive dust. This may include, but is not limited to, use of wet suppression as needed on aggregate (rock) containing dust sometimes present during dry dusty periods. Washed sand and washed aggregate is utilized in concrete batch plants leaving the material wet. Similarly, for weigh hopper loading of aggregate and sand, the material has already been wetted. These measures constitute reasonable fugitive dust control measures for handling and processing sand and aggregate.

TAPCR 1200-03-08-.01 and 1200-03-08-.03

(end of conditions)

The permit application gives the location of this source as 35.001586 deg Latitude and -89.581719 deg. Longitude.